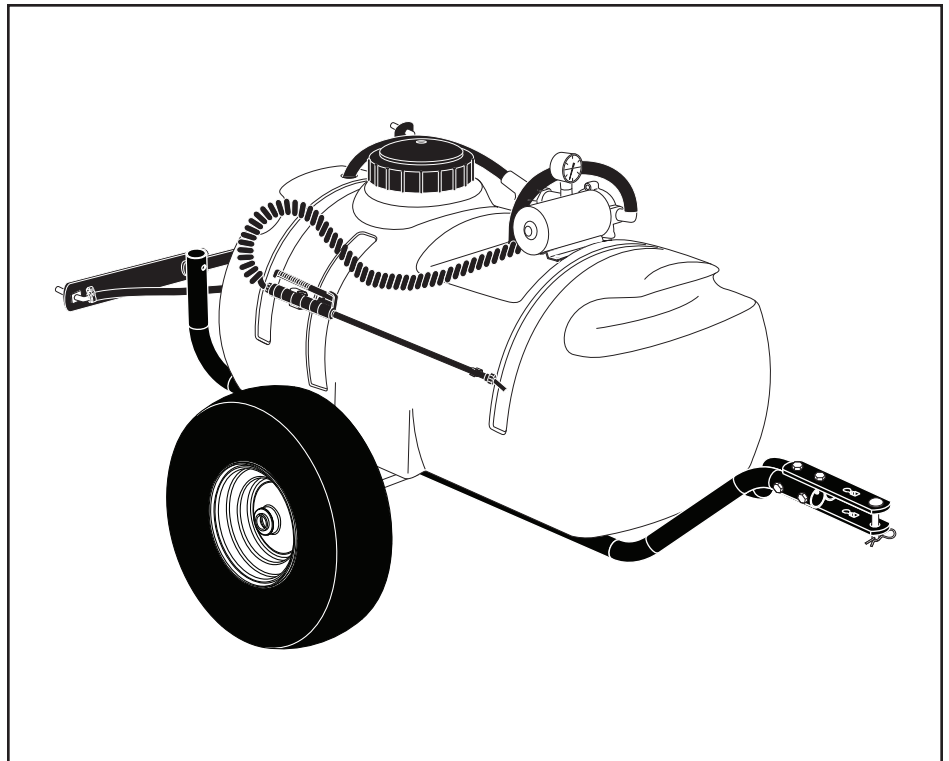


**Agri+Fab™**

**OWNERS  
MANUAL**

**Model No.  
45-0424**

**CAUTION:**  
Read Rules for  
Safe Operation  
and Instructions  
Carefully



**25 GALLON ATV  
TOW SPRAYER**

- Assembly
- Operation
- Maintenance
- Repair Parts

---

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# RULES FOR SAFE OPERATION

Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times when operating equipment.

1. Read this owners manual carefully before attempting to assemble or operate this sprayer.
2. Read your vehicle owners manual for operating and safety rules before using this equipment.
3. Never allow children to operate this sprayer, and do not allow adults to operate without proper instructions.
4. Do not allow anyone to ride on or sit on this sprayer. Do not allow passengers on the towing vehicle.
5. Keep the area of operation clear of all persons, particularly small children. Also keep area clear of pets.
6. Read the chemical label carefully for instructions and caution notes on handling and mixing of chemicals.
7. Wear eye and hand protection and wear protective clothing when handling and applying lawn chemicals.
8. Do not spray on windy days.
9. Attachment of this sprayer may affect your tractor's braking and stability. Be aware of your tractor's capabilities. Refer to the safety rules in the vehicle owner's manual concerning safe operation on slopes. **STAY OFF OF STEEP SLOPES.**
10. Operate at reduced speed on rough terrain, along ditches and on hillsides to prevent loss of control.
11. Follow maintenance and lubrication instructions as outlined in this manual.



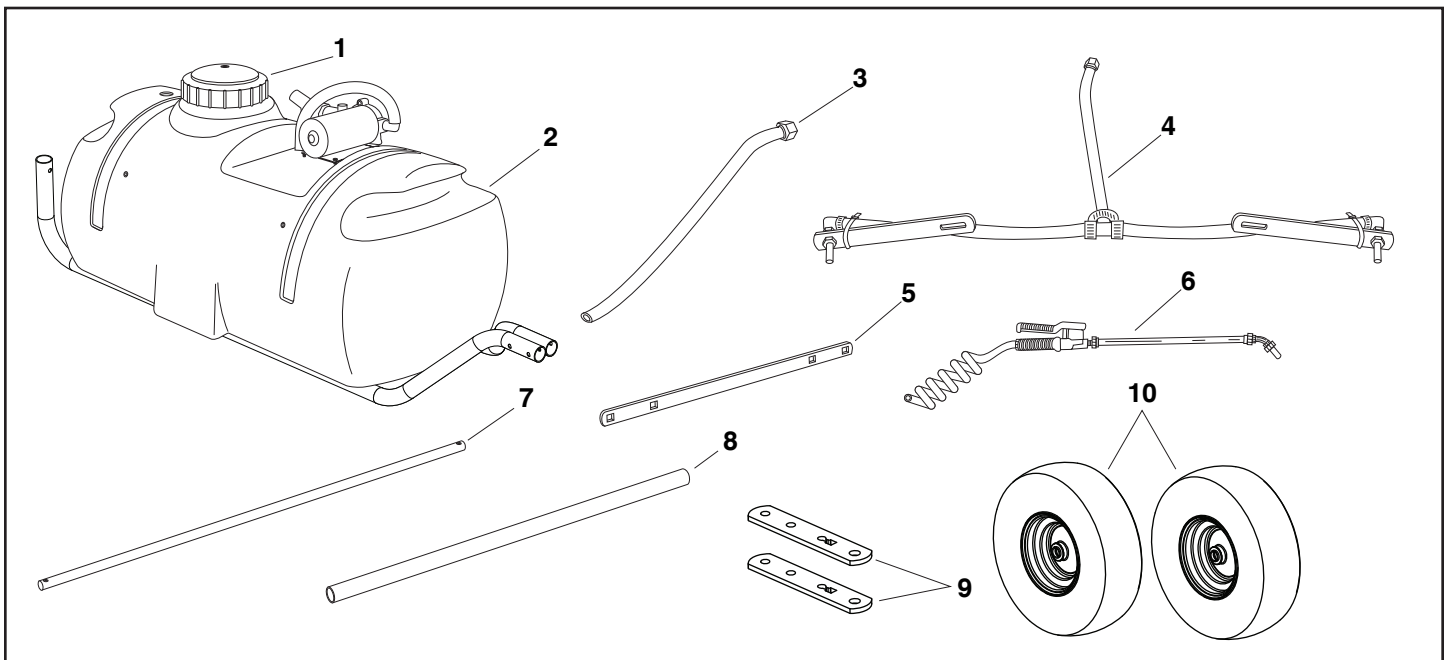
**LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS — ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.**

Your sprayer carton contains parts as shown below. The hardware package contains parts as shown on page 3. Identify all parts before beginning assembly.

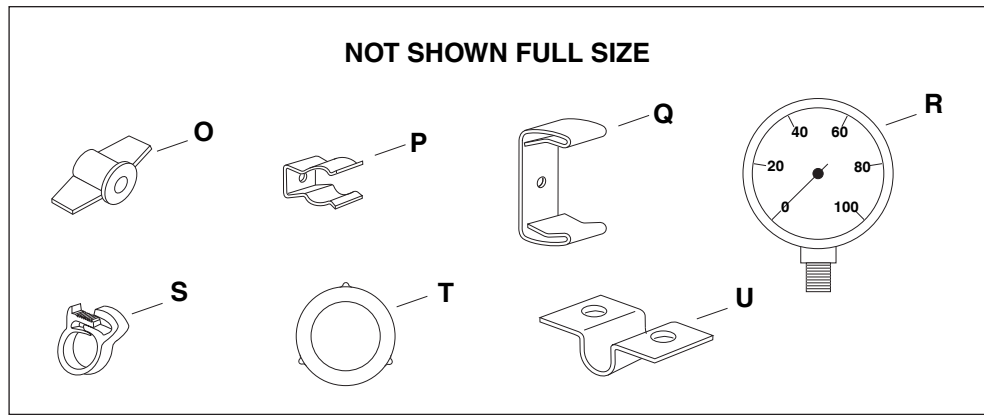
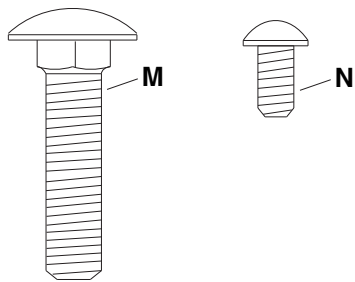
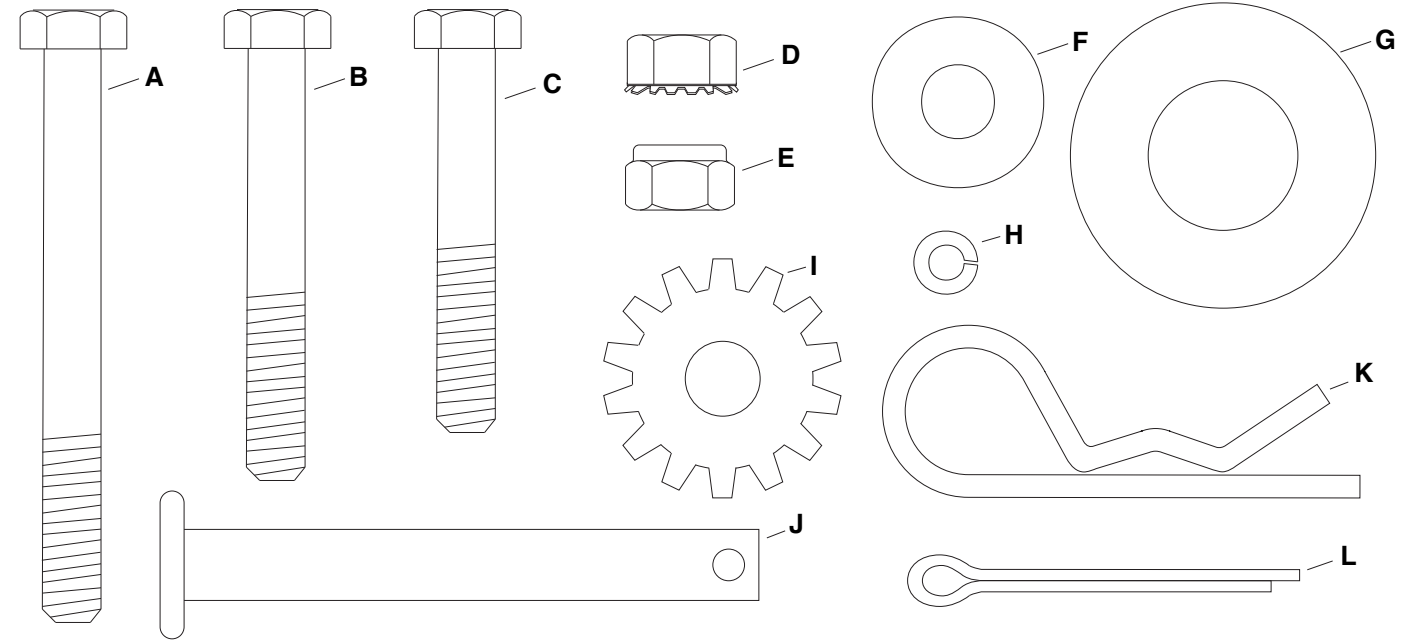
## CARTON CONTENTS

### LOOSE PARTS IN CARTON

- |  |                       |
|--|-----------------------|
| 1. Lid   | 6. Spray Gun Assembly |
| 2. Tank  | 7. Axle               |
| 3. Return/Bypass Hose (may be assembled to tank) | 8. Axle Support Tube  |
| 4. Boom Assembly                                 | 9. Hitch Brackets (2) |
| 5. Boom Mount Bracket                            | 10. Wheels (2)        |



## SHOWN FULL SIZE



### HARDWARE PACKAGE - FULL SIZE

KEY	QTY.	DESCRIPTION	KEY	QTY.	DESCRIPTION
A	2	Hex Bolt, 5/16" x 3"	L	2	Cotter Pin
B	2	Hex Bolt, 5/16" x 2-1/4"	M	2	Carriage Bolt, 5/16" x 1-1/4"
C	2	Hex Bolt, 5/16" x 2"	N	2	Screw, #10 x 3/8"
D	4	SEMS Nut, 5/16"	O	2	Knob
E	6	Nylock Nut, 5/16"	P	1	Spray Gun Clip, Small
F	6	Flat Washer, 5/16"	Q	1	Spray Gun Clip, Large
G	4	Flat Washer, 3/4"	R	1	Pressure Gauge
H	2	Lock Washer, #10	S	1	Coiled Hose Clamp
I	2	Washer, 5/16" Tooth Lock	T	2	Gasket, 3/4" Garden Hose
J	1	Hitch Pin	U	2	Axle Clamp
K	1	Hair Cotter Pin			

# ASSEMBLY INSTRUCTIONS

## TOOLS REQUIRED FOR ASSEMBLY

- (2) 1/2" Wrenches
- (1) Screwdriver
- (1) Pliers

1. Remove all items from carton and lay out as shown on pages 2 and 3.
2. Assemble the axle clamps, axle support tube and four 5/16" SEMS nuts to the factory installed bolts in the frame tubes. See figure 1.

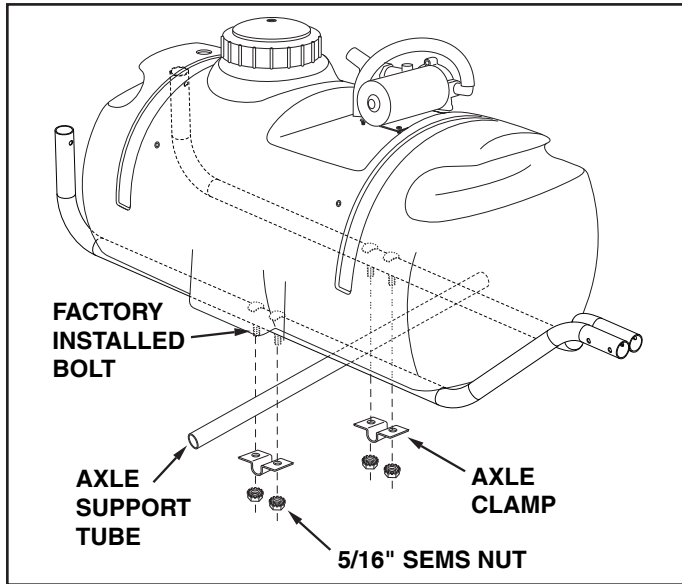


FIGURE 1

3. Slide the axle through the axle support tube. See figure 2.
4. Assemble a 3/4" washer, a wheel (valve stem facing out) and another 3/4" washer onto the axle. Assemble a cotter pin through the end of the axle. Repeat on other end. See figure 2.

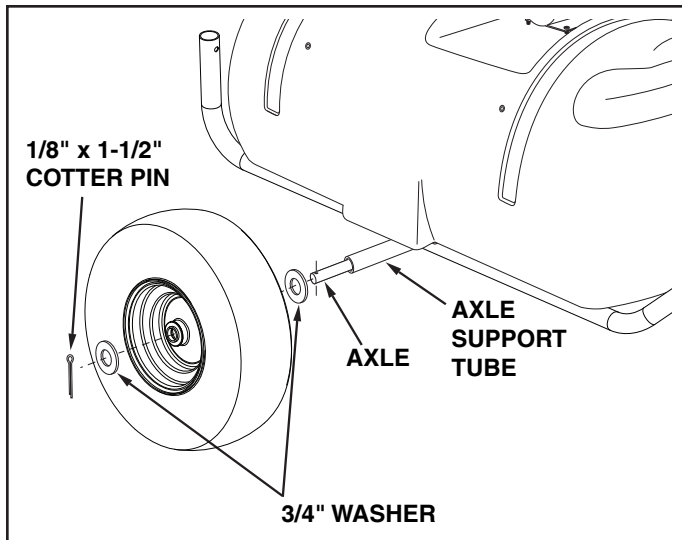


FIGURE 2

5. Fasten the front ends of the frame tubes together using two 5/16" x 3" hex bolts and 5/16" nylock nuts. **Do not tighten yet.** See figure 3.
6. Assemble hitch brackets to frame tubes using two 5/16" x 2-1/4" hex bolts, four washers (one on each side) and 5/16" nylock nuts. Position each bolt behind a cross bolt in the hitch arms. **Do not tighten yet.** See figure 3.
7. **Tighten** bolts assembled in step 7 then **tighten** bolts assembled in step 8. See figure 3.

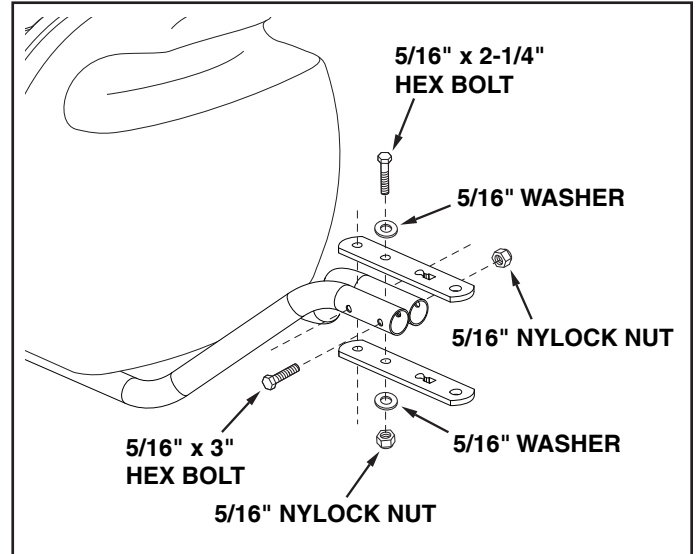


FIGURE 3

8. Assemble the boom mount bracket to the rear of the frame tubes using two 5/16" x 2" hex bolts and 5/16" nylock nuts. See figure 4.

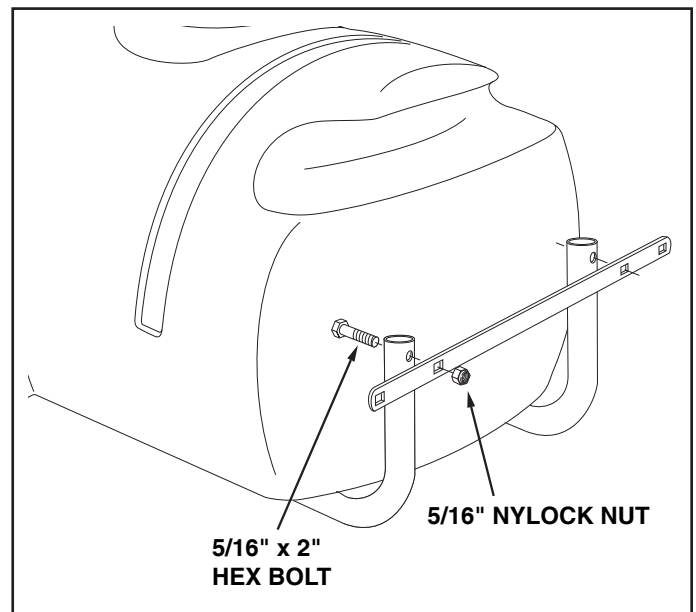


FIGURE 4

REAR VIEW

9. Assemble the boom bars to the boom mount bracket using two 5/16" x 1-1/4" carriage bolts, tooth lock washers (between the bar and bracket), 5/16" flat washers and knobs. The boom connecting hose should extend upward. See figure 5.

**NOTE:** Make sure the nozzles are adjusted so that the openings face straight down when the boom bar is in the horizontal operating position.

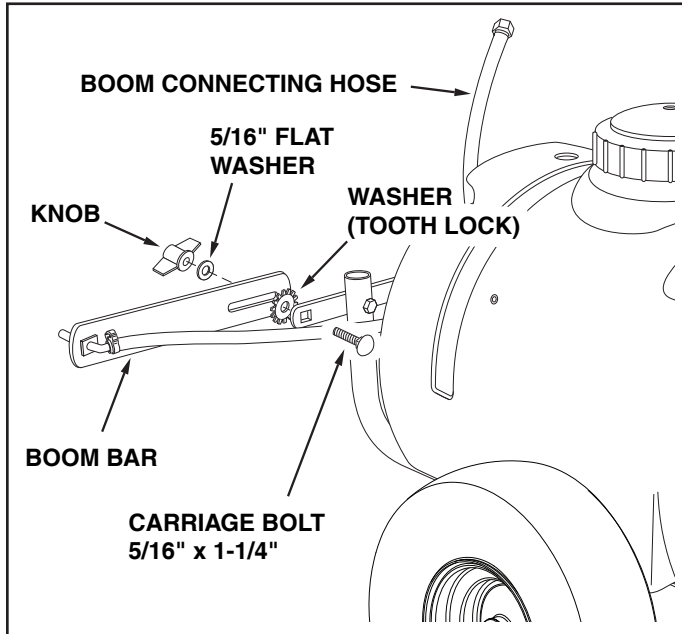


FIGURE 5

10. Assemble the large and small spray gun clips to the side of the tank using two #10 x 3/8" screws and #10 lock washers. See figure 6.

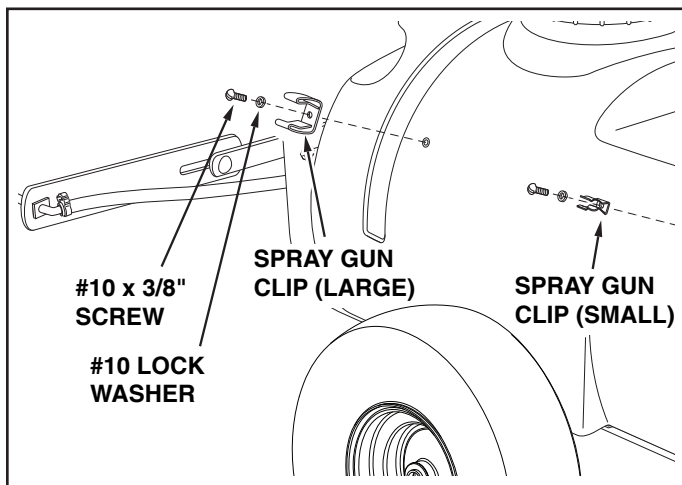


FIGURE 6

11. Insert a garden hose gasket into the swivel nut on the bypass/return hose. Screw nut onto upper outlet of the "Y" valve fitting. Place the other end of the hose down through the hole at the rear of the tank. See figure 7.
12. Insert a garden hose gasket into the swivel nut on the boom connecting hose. Screw the nut onto the lower outlet of the "Y" valve fitting. See figure 7.

13. Slide coiled hose clamp onto spray gun hose. Push hose onto hose adapter on the side of the "T" fitting as shown in figure 7. Tighten clamp around hose and adapter. Snap spray gun into clips on side of tank.
14. Carefully screw the pressure gauge into the top of the "T" fitting. See figure 7.

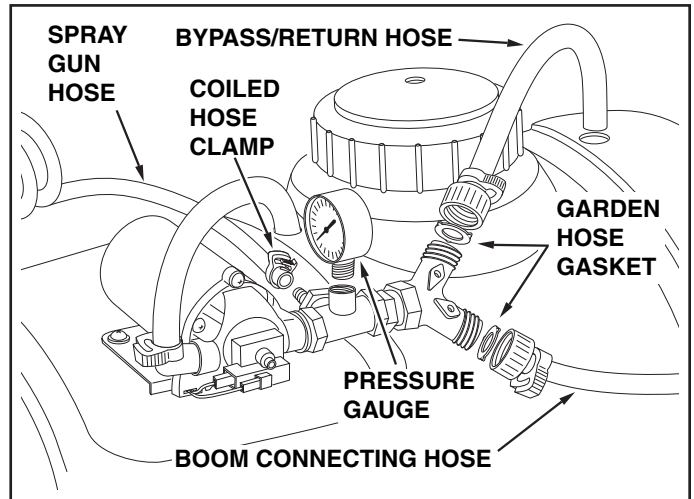


FIGURE 7

15. Attach sprayer to tractor hitch and connect the wiring to tractor battery. Red wire must be connected to positive post on battery or to "HOT" connection on a tractor switch or ammeter. Brown wire may be grounded or connected to negative battery post. See figures 8 and 9.

**IMPORTANT:** This sprayer should be connected to 12 volt batteries only!

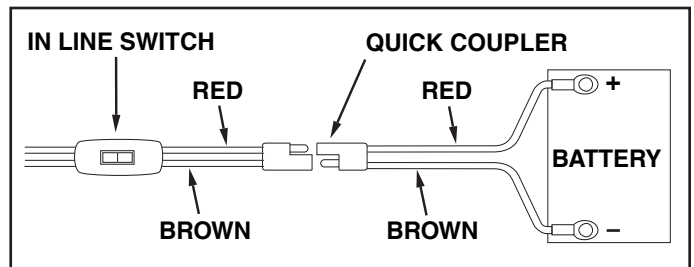


FIGURE 8

**NEVER ALLOW NEGATIVE PIN ON PLUG TO COME IN CONTACT WITH POSITIVE "HOT" POST ON BATTERY. FIRE OR EXPLOSION MAY RESULT!**

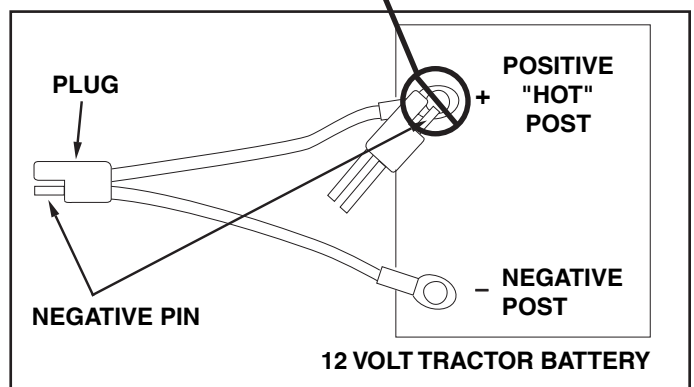


FIGURE 9

# OPERATION

## BEFORE STARTING

It is important to test the boom and spray gun with plain water before using chemicals. This will enable you to check the sprayer for leaks and to set the spray pattern and nozzle pressure. If a leak should occur, thread tape may be used to better seal the fitting.

## ON-OFF SWITCH

This switch is connected in line to the wiring assembly and is used by the operator to turn the pump motor on or off.

## PUMP PRESSURE SWITCH

The pump is equipped with a pressure switch. The pressure switch senses outlet pressure of the pump and will turn off the electrical power to the pump at a predetermined high pressure point (60 PSI). If the flow demand is very low, the pump may reach this high pressure point and the switch will cause "cycling" (the pump cycles on and off rapidly). This is not a problem unless the pump is subject to continuous cycling within one second intervals for long periods of time.

## ADJUSTING OPERATING PRESSURE

The sprayer is equipped with a "Y" fitting containing a bypass valve and a boom valve. The bypass valve controls the flow to the return (bypass) hose. The amount of flow through the return hose determines the operating pressure when the boom or the spray gun is in use. Adjust the bypass valve while either the boom or the spray gun is in use to obtain the desired pressure, indicated by the pressure gauge. The tip chart on page 9 shows how different pressure settings affect boom application rates.

## ON-OFF ADJUSTMENT OF BOOM NOZZLES

The boom valve on the "Y" fitting controls flow to the boom nozzles. It should be either completely open or completely closed. The boom operating pressure can be controlled using the bypass valve on the "Y" fitting.

## ADJUSTING SPRAY GUN NOZZLE

Turn the nozzle on the spray gun to adjust the spray from a cone shaped fine mist to a straight stream. Control the spray gun operating pressure with the bypass valve on the "Y" fitting. Maximum spray gun pressure can be attained when the boom is shut off.

## SETTING THE BOOM FOR SPRAYING

The correct positioning of the boom places the nozzles approximately 40" apart and 14" above the ground. This gives a spray width of approximately 80" with a slight center overlap. See figure 10.

- Slide the boom bars out to the ends of the slots.
- Swivel the boom bars until the nozzles are approximately 14" above the ground.
- Make sure the nozzles are adjusted so that the openings point straight down.

## USING THE SPRAYER

- Determine the application rate (gallons per 1,000 sq. feet or gallons per acre) based on the chemical manufacturers recommendations. Use this rate to help select the pressure setting and tractor speed in the following instructions.
- Determine the approximate square footage of the area to be sprayed and estimate the number of gallons required. This can help avoid unneeded solution left in the tank.
- Determine the appropriate speed at which to travel, based on the chosen pressure setting and the recommended application rate. Use the tip chart on page 9.
- To determine the throttle setting for attaining the appropriate speed, mark off 100, 200 and 300 feet intervals. The speed chart at the bottom of page 9 indicates the number of seconds it takes to travel these distances. Set the throttle and, with a running start, travel the distances in the number of seconds indicated by the speed chart. Once you have determined the throttle and gear settings needed, mark the throttle location so that you can easily resume the same speed after stopping.
- Set the operating pressure. Spray with plain water to help determine the best setting. For best results stay in the 20 to 30 PSI range. (At 10 PSI the spray pattern begins to break up, at 40 PSI some drift develops.) Refer to the tip chart on page 9.
- Add the chemical solution to the tank, following the product instructions.
- Drive to the starting place for spraying. Set the boom in position for spraying. Set the throttle at the position determined in step 4. Flip the sprayer's in-line switch to the "ON" position to start spraying.
- Stay clear of flowers, shrubs and evergreen trees when spraying weed control solutions to prevent contact of the solution with these sensitive plants.



**CAUTION: WEAR EYE PROTECTION, GLOVES AND PROTECTIVE CLOTHING WHEN HANDLING AND WORKING WITH LAWN CHEMICALS.**

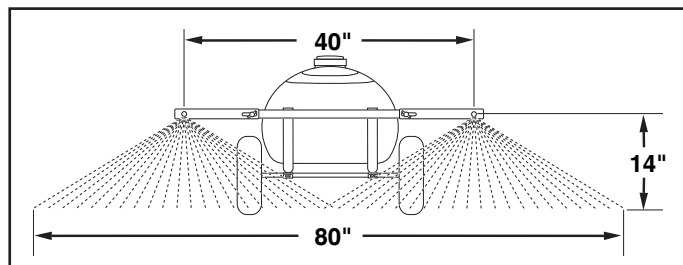


FIGURE 10

## MAINTENANCE

1. Do not store sprayer with any solution left in tank.
2. Periodically clean the strainer in the end of the intake hose at the bottom of the tank. Remove the nylon swivel nut from the hose, pull out the screen and flush it with clear water.
3. Periodically clean the strainers in the boom nozzles. Remove the nozzle, pull out the screen and flush it with clear water.

### AFTER EACH USE

4. After use, fill the sprayer part way with water, start the sprayer and allow clear water to be pumped through the plumbing system and out through the boom assembly and the handgun. Use the handgun to thoroughly wash all internal parts of the tank, the outside of the tank and the boom.
5. Refill the tank about half full with plain water and a chemical neutralizer and repeat the cleaning instructions above. Flush the entire sprayer with the neutralizing agent. Follow the chemical manufacturers instructions for disposal of all wash or rinsing water.

## ATTENTION!

**Do not** allow chemicals to sit in pump for extended times of idleness. Some chemicals will damage the pump valve if allowed to soak untreated for a length of time. Always flush the pump with water after each use. Follow the procedures in the AFTER EACH USE instructions for flushing and disposal.

### WINTER STORAGE

6. Drain all water out of the sprayer, paying special attention to the pump and handgun. These items are especially prone to damage from chemicals and freezing weather.
7. The sprayer should be winterized before storage by pumping a 50-50 solution of water and R. V. antifreeze through the entire plumbing. Proper care and maintenance will prolong the life of the sprayer.

### U.S. GALLON TIP CHART

Tip No.	Spray Height Inches	Pressure PSI	Tip Capacity US Gallons Per Minute	GALLONS PER ACRE (BASED ON WATER)						
				1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
		10	.30	44.2	22.1	14.8	11.1	8.9	5.9	4.4
#3	13"	20	.42	63	31.5	20.9	15.7	12.6	8.4	6.3
		30	.52	76.8	38.4	25.8	19.3	15.4	10.3	7.7
Tip No.	Spray Height Inches	Pressure PSI	Tip Capacity US Gallons Per Minute	GALLONS PER 1000 SQ. FT. (BASED ON WATER)						
				1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
		10	.30	1.0	0.50	0.34	0.26	0.20	0.14	0.10
#3	13"	20	.42	1.4	0.72	0.48	0.35	0.29	0.19	0.14
		30	.52	1.8	0.88	0.59	0.44	0.35	0.24	0.18

### IMPERIAL GALLON (LITER) TIP CHART

Tip No.	Spray Height Inches (mm)	Pressure PSI (Bar)	Tip Capacity Imperial Gallons per minute (liters per minute)	IMPERIAL GALLONS (Liters) PER ACRE (BASED ON WATER)						
				1 MPH 1.6 K/H	2 MPH 3.2 K/H	3 MPH 4.8 K/H	4 MPH 6.4 K/H	5 MPH 8 K/H	7.5 MPH 12 K/H	10 MPH 16 K/H
		10 (0.7)	.25 (1.135)	36.8 (167.3)	18.4 (83.6)	12.3 (56.0)	9.2 (42.0)	7.4 (33.7)	4.9 (22.3)	3.7 (16.7)
#3	13" (330 mm)	20 (1.4)	.35 (1.59)	52.5 (238.5)	26.2 (119.2)	17.4 (79.1)	13.1 (59.4)	10.5 (47.7)	7.0 (31.8)	5.2 (23.8)
		30 (2.1)	.433 (1.97)	64.0 (290.7)	32.0 (145.3)	21.5 (97.7)	16.1 (73.1)	12.8 (58.3)	8.6 (39.0)	6.4 (29.1)
Tip No.	Spray Height Inches (mm)	Pressure PSI (Bar)	Tip Capacity Imperial Gallons per minute (liters per minute)	IMPERIAL GALLONS (Liters) PER 1000 SQ. FT. (BASED ON WATER)						
				1 MPH 1.6 K/H	2 MPH 3.2 K/H	3 MPH 4.8 K/H	4 MPH 6.4 K/H	5 MPH 8 K/H	7.5 MPH 12 K/H	10 MPH 16 K/H
		10 (0.7)	.25 (1.135)	0.85 (3.85)	0.42 (1.92)	0.28 (1.29)	0.21 (0.97)	0.17 (0.77)	0.11 (0.51)	0.08 (0.38)
#3	13" (330 mm)	20 (1.4)	.35 (1.59)	1.21 (5.48)	0.60 (2.74)	0.40 (1.82)	0.30 (1.37)	0.24 (1.10)	0.16 (0.73)	0.12 (0.55)
		30 (2.1)	.433 (1.97)	1.47 (6.68)	0.74 (3.34)	0.49 (2.24)	0.37 (1.68)	0.29 (1.34)	0.20 (0.90)	0.15 (0.67)

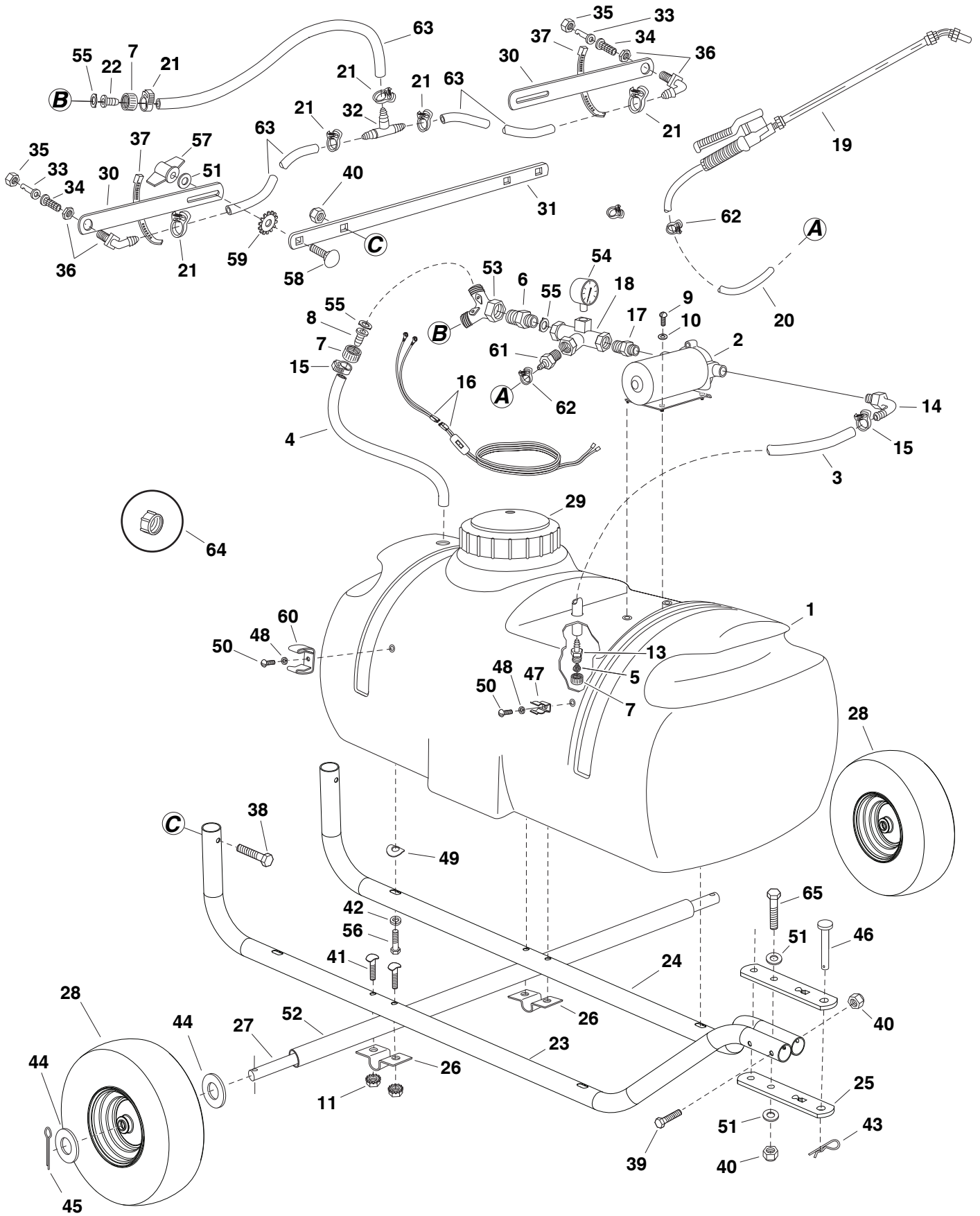
### GROUND SPEED CHART

M.P.H. (K/H)	Time Required in Seconds to Travel a Distance of:		
	100 ft (30.5 M)	200 ft (61 M)	300 ft (91.5 M)
1.0 (1.6)	68	136	205
2.0 (3.2)	34	68	102
3.0 (4.8)	23	45	68
4.0 (6.4)	17	34	51
5.0 (8.0)	14	27	41
6.0 (9.7)	11	23	34
7.0 (11.3)	9.7	19	29
8.0 (12.9)	8.5	17	26
9.0 (14.5)	7.6	15	23
10.0 (16.1)	6.8	14	20



# NOTES

# REPAIR PARTS FOR 25 GALLON SPRAYER MODEL 45-0424



## REPAIR PARTS LIST FOR 25 GALLON SPRAYER MODEL 45-0424

REF NO.	PART NO.	QTY.	DESCRIPTION	REF NO.	PART NO.	QTY.	DESCRIPTION
1	46283	1	Tank (25 Gal.)	33	45028	2	Nozzle, SS Floodjet
2	45015	1	Pump and Motor	34	45029	2	Strainer, Screen Type
3	46278	1	Hose, 1/2" ID (24" Lg.)	35	45037	2	Nut, Screen Body
4	45021	1	Hose, 1/2" ID (20" Lg.)	36	47396	2	Elbow, Plastic 11/16" Thd.
5	45024	1	Strainer, Cap Type 1"	37	726-0178	2	Nylon Tie
6	45031	1	Adapter, 1/2" NPT x Hose	38	44180	2	Bolt, Hex 5/16-18 x 2"
7	45032	3	Nut, Swivel 3/4" Garden Hose	39	46782	2	Bolt, Hex 5/16-18 x 3"
8	45033	1	Hose Barb, 1/2"	40	47810	6	Nut, Nylock 5/16-18
9	45069	4	Screw, Ph. Pan Hd. 10-24 x 1"	41	44947	4	Bolt, Curved Head 5/16-18 x 1-5/8"
10	43910	4	Flat Washer, #10 SAE	42	43086	4	Lock Washer, 5/16"
11	46980	4	Nut, Hex 5/16-18 (SEMS)	43	43343	1	Pin, Hair Cotter #4 (1/8")
12	45085	2	Terminal, .25 Male Tab (not shown)	44	43009	4	Washer, 3/4"
13	46276	1	Adapter, 3/4" GH x 1/2" Barb	45	43093	2	Cotter Pin, 1/8" x 1-1/2"
14	46277	1	Elbow, 3/8 NPT x 1/2" Barb	46	47623	1	Hitch Pin
15	45025	2	Clamp, 1/2" Hose (For Black Hose)	47	45180	1	Hose Clip, Small
	45026	2	Clamp, 3/8" Hose (For Clear Hose)	48	736-0722	2	Lock Washer, #10
16	49754	1	Switch and Wire Assembly	49	44695	4	Washer, Bowed
17	45049	1	Nipple, (Nylon) 1/2" x 3/8" Red.	50	46677	2	Screw, Phillips Hd. #10-24 x 3/8"
18	45050	1	Tee, 1/2" x 1/2" x 1/2" (1/4" Port)	51	43081	6	Washer, 5/16" Std. Wrt.
19	47406	1	Spray Gun	52	25897	1	Axle Support Tube
20	49761	1	Hose, 1/4" ID (15' Lg)	53	45017	1	Hose "Y" W / Valves 3/4"
21	45026	6	Clamp, 3/8" Hose (For Black Hose)	54	45071	1	Gauge, Pressure 2" 100 PSI
	47405	6	Clamp, 1/4" Hose (For Clear Hose)	55	45072	3	Gasket, 3/4" Garden Hose
22	45034	1	Hose Barb, 3/8"	56	43085	4	Bolt, Hex 5/16-18 x 1-1/2"
23	40166	1	Frame Tube (RH)	57	712-0421	2	Knob
24	40167	1	Frame Tube (LH)	58	43682	2	Bolt, Carriage 5/16-18 x 1-1/4"
25	24192	2	Hitch Bracket	59	44732	2	Washer, Tooth Lock 5/16"
26	25896	2	Axle Clamp	60	47397	1	Hose Clip (Large)
27	25898	1	Axle	61	47390	1	Adapter, 1/2" NPT x 1/4" Barb
28	48511	2	Wheel	62	49779	2	Clamp, Coiled Hose
29	46700	1	Lid	63	47392	3	Hose, 3/8" ID (20" Lg.)
30	24122	2	Boom Bar	64	48719	1	Drain Cap
31	24585	1	Bracket, Boom Mount	65	43224	2	Bolt, Hex 5/16-18 x 2-1/4"
32	47394	1	Tee, Plastic 3/8" Hose		40165	1	Owners Manual

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